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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,430	04/03/2001	Tadashi Takano	SIMTEK6140	4775

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EXAMINER

PHAM, LEDA T

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 08/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/681,430

Applicant(s)

TAKANO, TADASHI

Examiner

Leda T. Pham

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte* Quayle, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: how do “end closure 23” and “end closure 36” relate to first and second end closures? What is “a relate rotating machine”? “cylindrical member” does not describe in the specification.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 – 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is insufficient antecedent basis for the limitations in the following claims:

Claim 1 recites the limitation “related rotating machine” in line 5. In light of the spec. subject matter recited “related rotating machine” is understood as “rotating motor.”

Claims 6, 11, 13, 16 recite the limitation “the machine.” There is insufficient antecedent basis. In light of the spec. subject matter recited “the machine” is understood as “the motor.”

★ Claims 21, 23, and 24 recite the limitation “the bearing”. There is insufficient antecedent basis.

Claim 26 recites the limitation "the associated machine". There is insufficient antecedent basis. In light of the spec. subject matter recited "the associated machine" is understood as "the motor."

Claims 2 - 5, 7 - 10, 12, 14 - 15, 17 - 20, 22, and 25 are rejected because depended on claim 1.

Claim Rejections - 35 USC § 102

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1 - 5, 8, 10, 13 - 15, 17 - 19, 21 - 22, 24 - 25, 27 - 29, 31 - 32, and 33 - 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakanosono (U.S. Patent No. 6,276,475 B1).

Nakanosono teaches in figure 1 a DC rotating electrical machine (11) comprised of an outer housing (28) forming a stator (42) of said DC rotating electrical machine, said outer housing being comprised of a generally cylindrical center section and affixed first and second end closures (22, 23), a rotor (43) journaled within said outer housing and extending through said first end closures (23) for driving connection to a motor (41), said first end closure forming

a cavity (between 41 and 42) in which a substantial portion of said related rotating machine is contained.

Referring to claim 2, Nakanosono teaches a third end closure (24) is affixed in closing relation to the cavity of the first end closure for containing the related rotating machine within the cavity of said first end closure.

Referring to claim 3, Nakanosono teaches the first and second end closures (22 and 23) are axially spaced from each other and the second end closure is integrally formed with an axially extending cylindrical center section.

Referring to claim 4, Nakanosono teaches the first end closure (23) is in abutting relation to the axially extending cylindrical center section.

Referring to claim 5, Nakanosono teaches the first end closure (23) is axially spaced from the axially extending cylindrical center section.

Referring to claim 8, Nakanosono teaches a portion of the laminated core (42) is exposed between the first and second end closures (22, 23).

Referring to claim 10, Nakanosono teaches a sensor (46) contained within the outer housing for sensing the rotational position of said rotor (43).

Referring to claim 13, Nakanosono teaches the controller (46) is mounted in the interior of the motor (41).

Referring to claim 14, Nakanosono teaches the controller (46) is mounted axially between the first and second end closures (22, 23).

Referring to claim 15, Nakanosono teaches the controller (46) is mounted in a cylindrical member interposed between the first and second end closures (22, 23).

Referring to claim 17, Nakanosono teaches the second end closure (22) carries a cylindrical post (15, 16) extending into a cylindrical opening in the rotor (43) for journaling said rotor within the outer housing (28).

Referring to claim 18, Nakanosono teaches the cylindrical post (15, 16) extends a substantial distance axially into the rotor (43).

Referring to claim 19, Nakanosono teaches the cylindrical post (15, 16) engages a bearing (35) associated with the rotor (43).

Referring to claim 21, Nakanosono teaches the bearing (35) associated with the rotor comprises an anti friction bearing (column 4, line 7-8).

Referring to claim 22, Nakanosono teaches the cylindrical post (15, 16) is detachably connected to the second end closure (23).

Referring to claim 24, Nakanosono teaches the bearing (35) associated with the rotor (43) comprises an anti friction bearing (column 4, line 7-8).

Referring to claim 25, Nakanosono teaches the cylindrical post (15, 16) is integrally formed with the second end closure (22).

Referring to claim 27, Nakanosono teaches a DC rotating electrical machine (figure 1) comprised of an outer housing (28) forming a stator (42) of said DC rotating electrical machine, said outer housing (28) being comprised of a generally cylindrical center section closed at opposite ends by first and second end closures (22, 23), a rotor (43) within said outer housing and extending through said first end closures (23) for driving connection to a motor, said second end closure (22) carrying a cylindrical post (15, 16) extending into an cylindrical opening in said rotor (43) for journalling said rotor within said outer housing.

Referring to claim 28, Nakanosono teaches the cylindrical post (15, 16) extends a substantial distance axially into the rotor (43).

Referring to claim 29, Nakanosono teaches the cylindrical post (15, 16) engages a bearing (35) associated with the rotor (43).

Referring to claim 31, Nakanosono teaches the bearing (35) associated with the rotor comprises an anti friction bearing (column 4, line 7-8).

Referring to claim 32, Nakanosono teaches the cylindrical post (15, 16) is detachably connected to the second end closure (22).

Referring to claim 34, Nakanosono teaches the bearing (35) associated with the rotor comprises an anti friction bearing (column 4, line 7-8).

Referring to claim 35, Nakanosono teaches the cylindrical post (15, 16) is integrally formed with the second end closure (22).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6 - 7, 9, and 11 - 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakanosono in view of Takagi et al (U. S. Patent No. 6,081,056).

Nakanosono teaches a DC rotating electrical machine having the limitations of the base claimed invention, except for the added limitations of the following:

The stator made up a plurality of field coils.

The plurality of field coils is wound around a laminated core.

The DC rotating electrical machine is brushless.

A controller responsive to the output of the sensor switches the polarity of the field coils.

Takagi teaches in figure 1 - 6, a stator (10) made up a plurality of field coils (12), wherein the plurality of field coils are wound around a laminated core (11), and a controller (20) responsive to the output of the sensor (24) switches the polarity of the field coils for controlling to drive the motor. Also, Takagi disclose the machine is brushless.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Nakanosono's DC rotating electric machine with the stator, the controller as taught by Takagi for controlling to drive the motor.

6. Claims 20, 23, 30, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakanosono in view of Jensen et al. (U.S. Patent No. 6,140,725)

Nakanosono teaches a DC rotating electrical machine having the limitations of the base claimed invention, except for the added limitations of the bearing associated with the rotor comprising an oil impregnated, sleeve type bearing.

Jensen teaches a brushless motor having the bearing associated with the rotor comprising oil impregnated, sleeve type bearing (9, 16) for carrying the bearing.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Nakanosono's DC rotating electric machine with the bearing having sleeve type bearing as taught by Jensen for carrying the bearing.

7. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakanosono in view of Bloch et al. (U.S. Patent No. 6,169,345 B1)

Nakanosono teaches a DC rotating electrical machine having the limitations of the base claimed invention, except for the added limitations the DC rotating electrical machine comprises a motor and the associated machine is a hydraulic pump. Bloch teaches a motor having a hydraulic pump (gear, column 1, lines 40 – 43) for converting frequency.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Nakanosono's DC rotating electric machine with the hydraulic pump as taught by Bloch for converting frequency.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakanosono, and in view of its being common knowledge in the art that rearranging part of an invention involves only routine skill.

Nakanosono disclose the controller in of the machine substantially as recited in the claim 16. However, the controller is mounted on the interior of the machine while the claim recite the controller is mounted on the exterior of the machine.

Nevertheless, it would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange the controller for easy to look. This is obvious because it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Conclusion

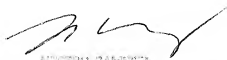
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leda T. Pham whose telephone number is (703) 305-4864. The examiner can normally be reached on M-F (7:30-5:00) first Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-9176 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3431.

Leda T. Pham
Examiner
Art Unit 2834

LTP
August 12, 2002


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SENIOR EXAMINER
AUG 13 2002